

REMARKS

Claim 1 was presented for examination. In an Office Action dated October 6, 2004, Claim 1 was rejected.

Applicant herein amends Claim 1 and adds new Claims 2-23.

Based on the above Amendment and the following Remarks, reconsideration of this application as amended, and allowance of all pending claims, Claims 1-23, are hereby respectfully requested.

Claim Rejection Under 35 U.S.C. § 112, Paragraph 2

Examiner rejected Claim 1 under 35 U.S.C. § 112, Paragraph 2, as allegedly being indefinite for not particularly pointing out and distinctly claiming the subject matter that the Applicant regards as the invention. The Examiner stated, "Claim 1 recites a limitation of 'the active region has a lateral area' which does not convey a clear meaning. 'Lateral' means in general relating to the side or situated on the side, and the instant invention does not disclose any area in this aspect."

Applicant has amended Claim 1 to recite, "the active region has an area A."

Applicant respectfully submits that Claim 1 as amended now defines the invention with sufficient particularity and distinctiveness to be patentable to Applicant.

Claim Rejection Under 35 U.S.C. § 102(e)

Examiner rejected Claim 1 under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,383,858 to Chakravorty. However, U.S. Patent No. 6,383,858 issued to Gupta

and Tauke, not Chakravorty. Applicant assumes Examiner intended to cite U.S. Patent No. 6,452,776 to Chakravorty ("Chakravorty"). This rejection is traversed.

The Examiner stated,

Regarding claim 1, insofar as understood, Fig. 2A of Chakravorty shows a parallel plate varactor

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Regarding the limitation of a ratio between the lateral area and the conducting perimeter, Fig. 2A of Chakravorty shows the limitation over the specified ratio. If a length of top electrode 125 is L , then the conducting perimeter is $4L$ and a square root of the area is L , thus the ratio R is 4.

Claim 1 recites, in pertinent part:

wherein, for at least one of the electrodes:

the active region has an area A , the electrode has a current conducting perimeter P ; and a ratio R of the perimeter P to a square root of the area A is at least 2.0.

Applicant respectfully submits that Claim 1 is distinguishable over Chakravorty at least for the following reason. In the top electrode 125 of Chakravorty, the current path is not laterally through the sides of the top electrode 125. Rather, it is vertically through the conductive vias 135. Thus, the current conducting perimeter, if any, is not $4L$ as asserted by the Examiner, but is instead relatively small and the ratio R as defined in Applicant's Claim 1 is not "at least 2.0," as recited in Applicant's Claim 1.

Thus, Applicant respectfully submits that Claim 1 is patentable over Chakravorty.

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CONCLUSION


Applicant has added new Claims 2-23 for which Applicant requests consideration and examination. Applicant respectfully submits that these are supported by the specification and are commensurate within the scope of protection to which Applicant believes he is entitled.

In sum, Applicant submits new Claims 2-23 and respectfully submits that Claims 1-23, as presented herein, are patentably distinguishable over all of the art of record. Therefore, Applicant requests reconsideration of the basis for the rejections and requests allowance of these claims.

In addition, Applicant respectfully invites Examiner to contact Applicant's representative at the number provided below if Examiner believes it will help expedite furtherance of this application.

Respectfully submitted,
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